



USAID
FROM THE AMERICAN PEOPLE



mFarmer

ICT and AG in Ethiopia Workshop

Judy Payne, USAID

**e-Business Advisor, ICT Team, EGAT/I&E and
ICT Advisor, AFR/SD/EGEA**

**Amol Jadhav, GSMA Development Fund
mAgri Project Manager, mFarmer Initiative Team**

20 February 2012

Addis Abba, Ethiopia



Agenda


	Who	Timing
1. Intros	Judy, All	930am – 950am
2. mFarmer Overview	Amol	950AM – 10AM
3. Learning from GSMA's mAgri Team	Amol	10am – 1045am
Break		1045am – 11am
4. Beyond Mobile: ICT and AG	Judy	11am – 1140am
5. Discussion: Opportunities and Challenges in Ethiopia	All	1140am to Noon

1. Introduction

- What is Judy's Role? Amol's Role?
- What has she learned so far in Addis on this Visit?
 - Supply Side
 - Demand Side
- Introducing all participants



Agenda



	Who	Timing
1. Intros	Judy, All	930am – 950am
2. mFarmer Overview	Amol	950AM – 10AM
3. Learning from GSMA's mAgri Team	Amol	10am – 1045am
Break		1045am – 11am
4. Beyond Mobile: ICT and AG	Judy	11am – 1140am
5. Discussion: Opportunities and Challenges in Ethiopia	All	1140am to Noon

Agenda

- The mFarmer Initiative
- Case Studies
 - M Kilimo
 - IKSL
- Developing AgriVAS:
 - Market Opportunity
 - Market Assessment & User Needs
 - Service Design
 - Marketing
 - Commercial Model & Business Case
- Q&A



Agenda

- **The mFarmer Initiative**
- Case Studies
 - M Kilimo
 - IKSL
- Developing AgriVAS:
 - Market Opportunity
 - Market Assessment & User Needs
 - Service Design
 - Marketing
 - Commercial Model & Business Case
- Q&A



The mFarmer Initiative

Objective: To enable over 2 Million smallholder farmers to obtain critical agricultural information and advice via the mobile channel by June 2014

The mFarmer Initiative aims to:

- Drive scalable, replicable and commercially viable services
- Build services that increase farmers' productivity and incomes
- Test and prove service and business models
- Promote and lead knowledge sharing

The main components of the mFarmer Initiative are:

- Challenge Fund
- Agricultural Content Database
- Technical Assistance
- Monitoring and Evaluation Tools



Agenda

- The mFarmer Initiative
- Case Studies
 - **M Kilimo**
 - IKSL
- Developing AgriVAS:
 - Market Opportunity
 - Market Assessment & User Needs
 - Service Design
 - Marketing
 - Commercial Model & Business Case
- Q&A



M Kilimo

- Set-up by KenCall (the largest BPO call centre in East Africa)
- Leverage existing call centre infrastructure
- Farmers call the helpline and talk to an agri-advisor
- 30,000 users since inception, set-up in Nov '09

GSMA provided a grant to KenCall to set-up M-Kilimo
(previously called Kenya Farmers Helpline)
Supported by the Rockefeller Foundation



M-Kilimo
Mwananchi wa Kilimo

Je, umachuka kumachuka
huku ndako na hali
haya? Mwachacha? Mayai!

Je, umachuka dawa
mbaya ambayo haitika
uguvu wa kati? Cough
kwa hali mbaya hizi!

Je, ni mabugu ya kama
mwanachama? Mwachacha?
hali hii ambayo?

Matumizi yangu na
vitali vyanjani na
uguvu wa kati?
Je, mchafuza hizi!

Pigeo kwa M-Kilimo ili kupata mawazito ya kitandao kutoka Kilimo hiki kutanwa chache!
Tunatafuta hii na pamoja jina mbuga zake mwanachama kwa jina la Kilimo kwa hali
Tunatafuta hii na pamoja kwa hali mwayi yake kwa hali hizi hizi!

071 103 5345 (SAFARICOM)
073 213 5345 (ZAIN)
020 660 2345 (TELKOM)

KenCall

mAgri Programme Case Study
M-Kilimo, Kenya



FACTS - Kenya

<p>Population: 35m (of which rural: 18.4m)</p> <p>GDP: \$475m (of which Agri: \$16.25m)</p> <p>Per Capita: \$170 (vs \$5 per day)</p>	<p>50% of all exports generated by the agricultural sector</p> <p>70% of labour working in agriculture</p> <p>Mobile Penetration: 51%</p>
---	---

Kenya: The Arena

Kenya is a developing country where over 70% of the population live and work in rural areas. The vast majority of this population is dependent upon farm yield to survive. Often, this focus upon subsistence means that the full commercial potential of smallholder farms is restricted.

Kenyan farming methods are handed down from generation to generation and are not always the most efficient. Nor do they take advantage of cutting-edge scientific techniques and knowledge that are applicable to them. These two facts have a yawning effect: a gap that exists between a typical Kenyan farmer and the best practices that could uplift their productivity and livelihood.

In the same time, Kenya has one of the highest mobile penetration rates among Sub-Saharan African countries. More than half the population has access to mobile telephony. The mobile phone, then, is often the only piece of technology to which rural people have access and is ideally placed to bridge the knowledge gap and have impact upon productivity and income.

M-Kilimo: Overview

M-Kilimo is a service that provides agricultural mobile value added service products (Agri VAS), the Development Fund, supported by the

Agenda

- The mFarmer Initiative
- Case Studies
 - M Kilimo
 - **IKSL**
- Developing AgriVAS:
 - Market Opportunity
 - Market Assessment & User Needs
 - Service Design
 - Marketing
 - Commercial Model & Business Case
- Q&A



IKSL

- Joint venture between mobile phone operator Airtel and Indian Farmers fertiliser Co-operative (IFFCO)
- Farmers buy a “Green SIM card” loaded with 2-way agri-services
- Push: Daily voice messages (free) and pull helpline to an agri-advisor (same price as regular call)
- Leverage the strength of each partner
- Over 1.2 Million active users, across 18 States in India, set-up in June '08

GSMA provided a grant and technical assistance to strengthen the service, concentrating on content and infrastructure enhancements. Supported by the Bill & Melinda Gates Foundation



mAgri Programme Case Study IKSL, India



KEY FACTS - India Population: 1.19bn (of which rural: c.70%) GDP Total: \$4tn (of which Agrt: \$1.12tn) GDP Per Capita: \$3290 (<\$10 per day)	70% of labour working in agricult Mobile Penetration: 66.16% (De Projected 84% teledensity (1bn)
--	--

IKSL - Overview
 IFFCO Kisan Sanchar Limited (IKSL) is a tri-lateral joint venture between the Indian Farmers Fertiliser Coop largest farmers' cooperative in India and airtel, the largest mobile network operator, along with Star Global F telephony experts who acquired 25% shares. IKSL provides voice-based agricultural information to empower reinforce the cooperative through the mobile network. After a successful pilot, the service launched in 2008.

IKSL distributes airtel SIM cards branded 'Green SIM' to its IFFCO members and other farmers. The Green SIM as well as providing the agricultural valued added services (Agri VAS). The user receives 5 recorded vs change, each day covering both local and national agricultural topics. Green SIM users access an Agri Helpline answers from agri-experts to any farming question they care to raise.

The GSMA mAgri Programme provided a grant and technical assistance to IKSL. Our work aimed to strengthen improve the ICT content systems to ensure efficacy and relevance for the end user - and to leave the project

Agenda

- The mFarmer Initiative
- Case Studies
 - M Kilimo
 - IKSL
- Developing AgriVAS:
 - **Market Opportunity**
 - Market Assessment & User Needs
 - Service Design
 - Marketing
 - Commercial Model & Business Case
- Q&A



AgriVAS: Market Opportunity

Agriculture:

- Lack of Ag productivity
- 2.3B living on less than \$2 USD/day
- Population of 9B by 2050, requires 70%+ in food production from 2006 (FAO)

MNOs:

- Saturated urban markets
- Need for differentiation
- Increase utility of existing assets (ubiquity of mobile phones)



Agenda

- The mFarmer Initiative
- Case Studies
 - M Kilimo
 - IKSL
- Developing AgriVAS:
 - Market Opportunity
 - **Market Assessment & User Needs**
 - Service Design
 - Marketing
 - Commercial Model & Business Case
- Q&A

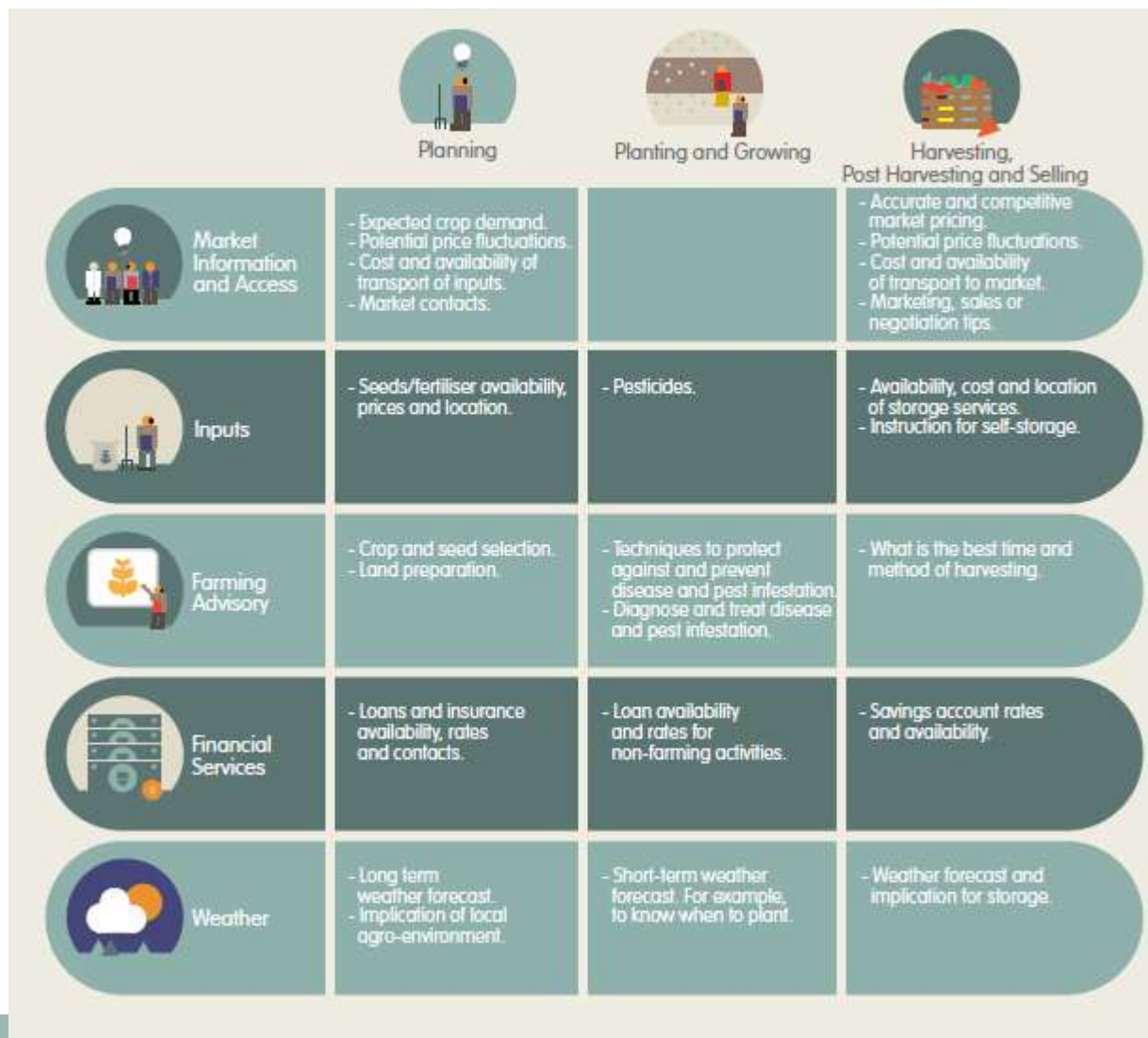


AgriVAS: Market Assessment & User Needs

- Market Segmentation
 - Language/culture
 - Agro-climactic zones
 - Gender
- Market Research
 - Crop type and varieties
- Gender
- The Agriculture Lifecycle



AgriVAS: Market Assessment & User Needs



Agenda

- The mFarmer Initiative
- Case Studies
 - M Kilimo
 - IKSL
- Developing AgriVAS:
 - Market Opportunity
 - Market Assessment & User Needs
 - **Service Design**
 - Marketing
 - Commercial Model & Business Case
- Q&A



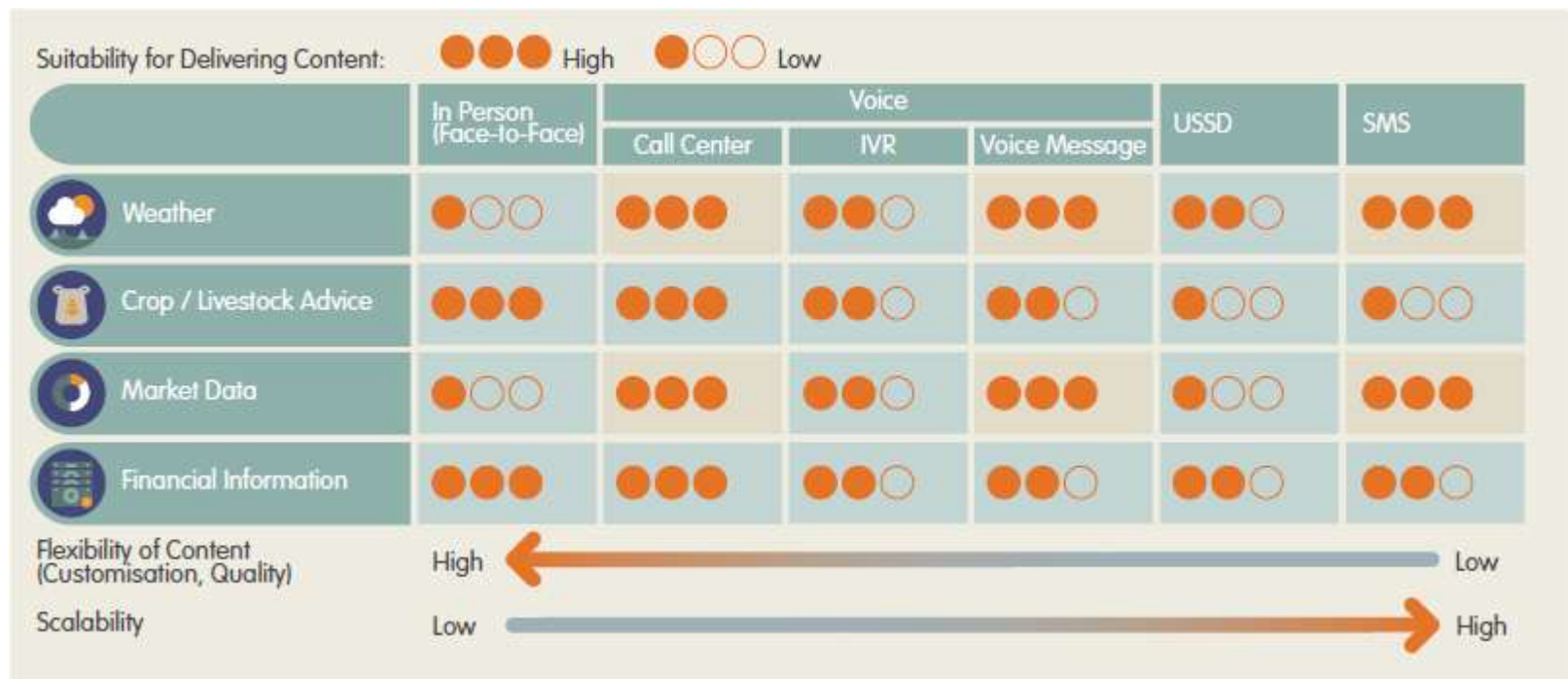
AgriVAS: Service Design

- Timely, Actionable & Relevant
- Push/Pull Models
- Agriculture Information
- Delivery Model

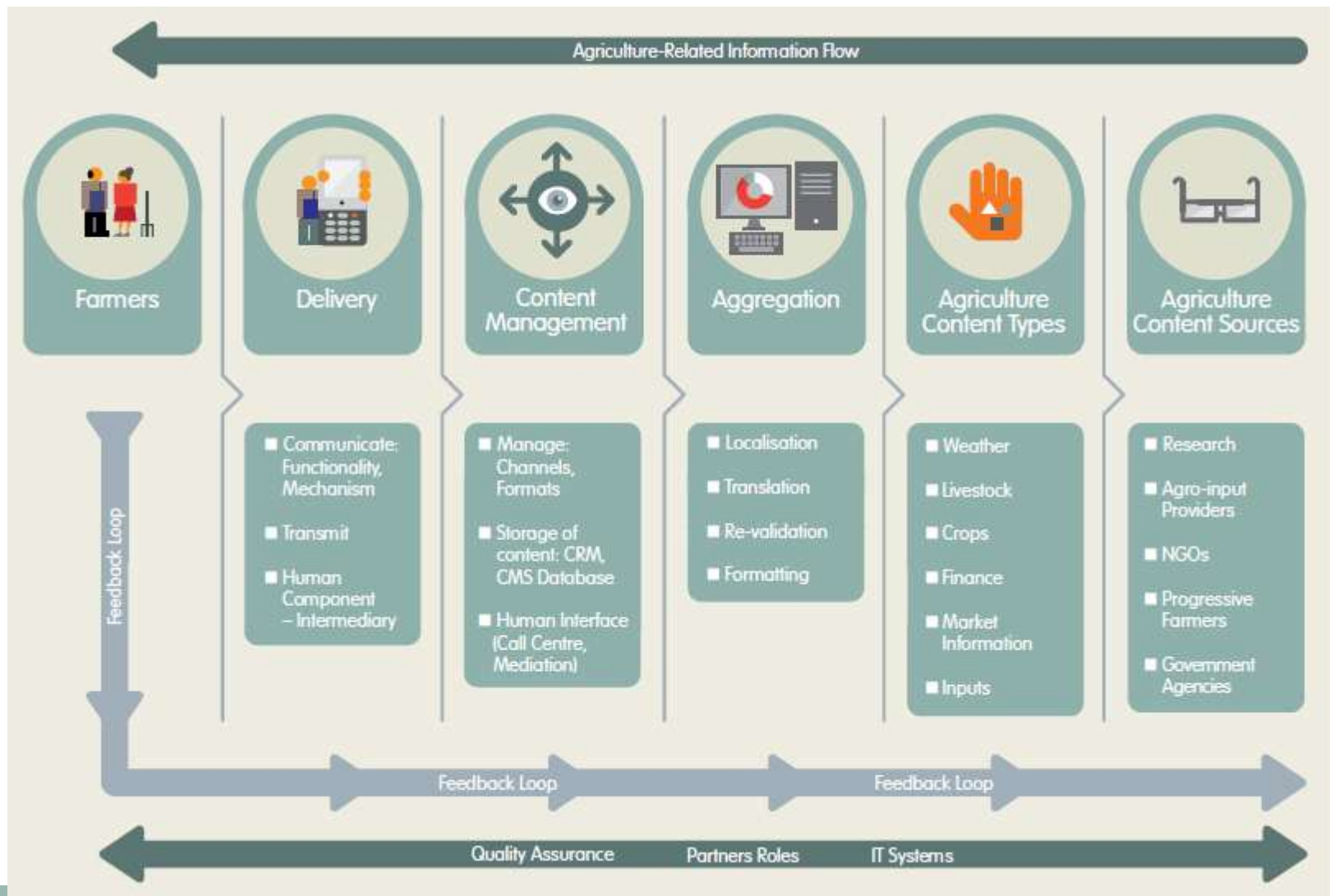


AgriVAS: Service Design

Information & Channels



AgriVAS: Service Design

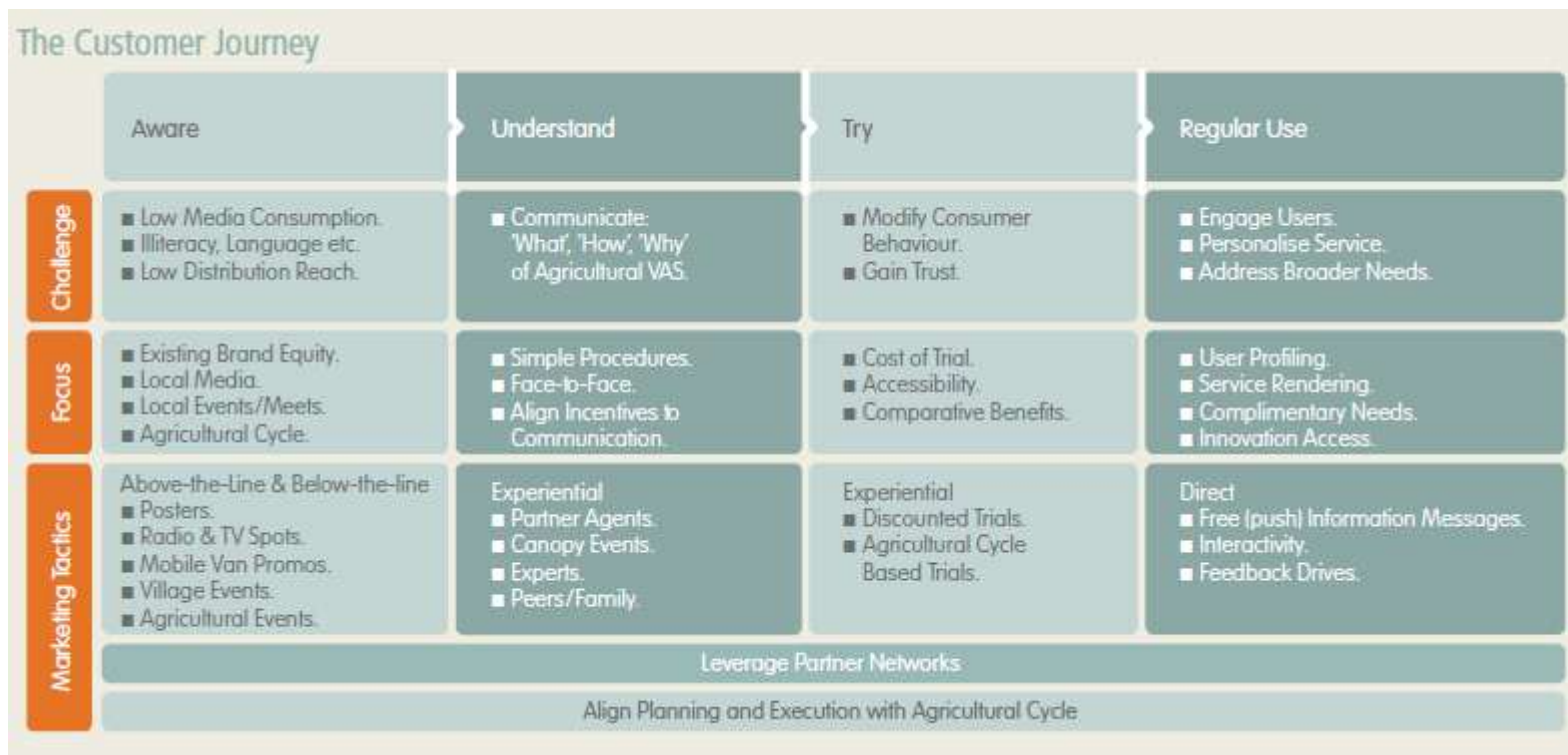


Agenda

- The mFarmer Initiative
- Case Studies
 - M Kilimo
 - IKSL
- Developing AgriVAS:
 - Market Opportunity
 - Market Assessment & User Needs
 - Service Design
 - **Marketing**
 - Commercial Model & Business Case
- Q&A



AgriVAS: Marketing



Agenda

- The mFarmer Initiative
- Case Studies
 - M Kilimo
 - IKSL
- Developing AgriVAS:
 - Market Opportunity
 - Market Assessment & User Needs
 - Service Design
 - Marketing
 - **Commercial Model & Business Case**
- Q&A



AgriVAS: Commercial Model & Business Case

Sources of Revenue

1. B2C
 - Poor rural smallholders
2. B2B
 - Contract (bulk) Sales
 - Advertising
 - Data Collection
 - Market Research



Snacks &

B

**Contract Farming
Company has greater
reach and ability to
empower their
contracted farmers**



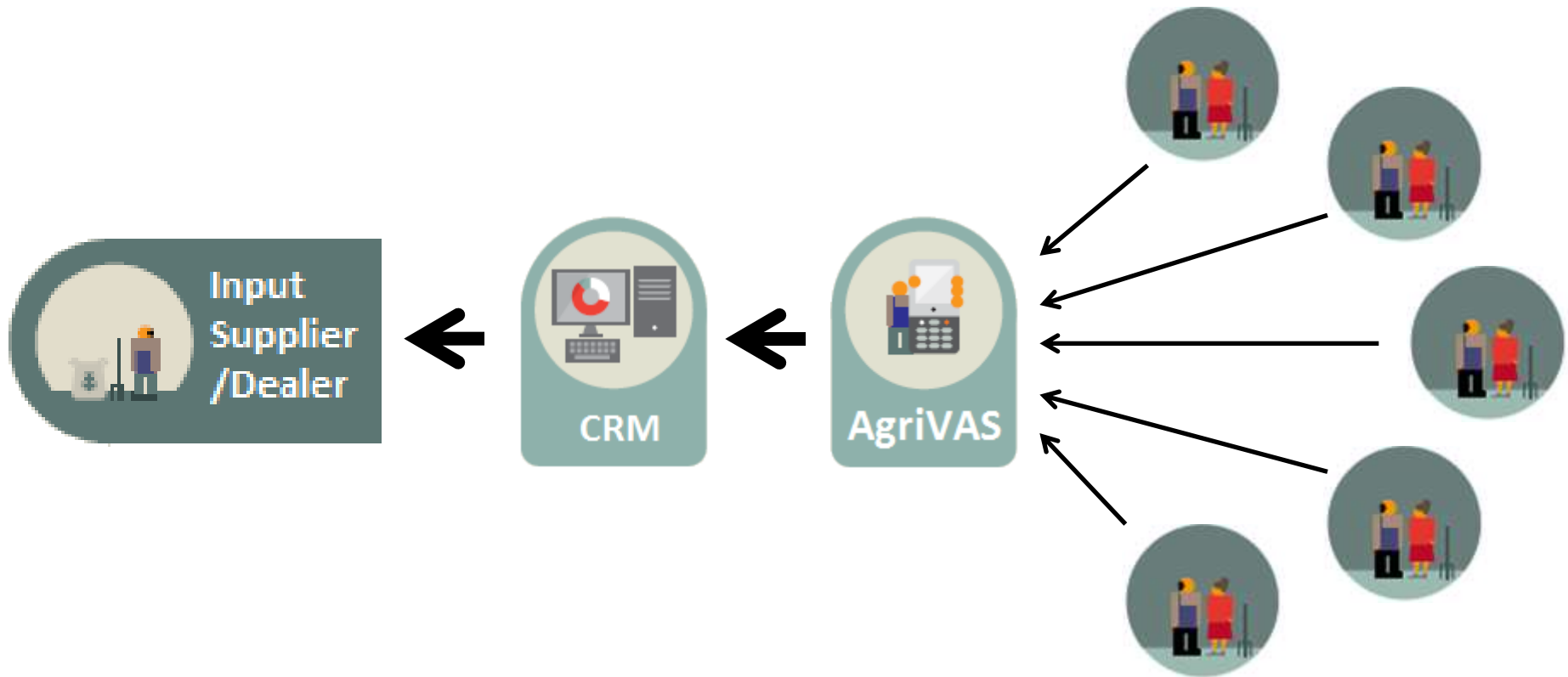
Farming
Advisory
(AgriVAS)



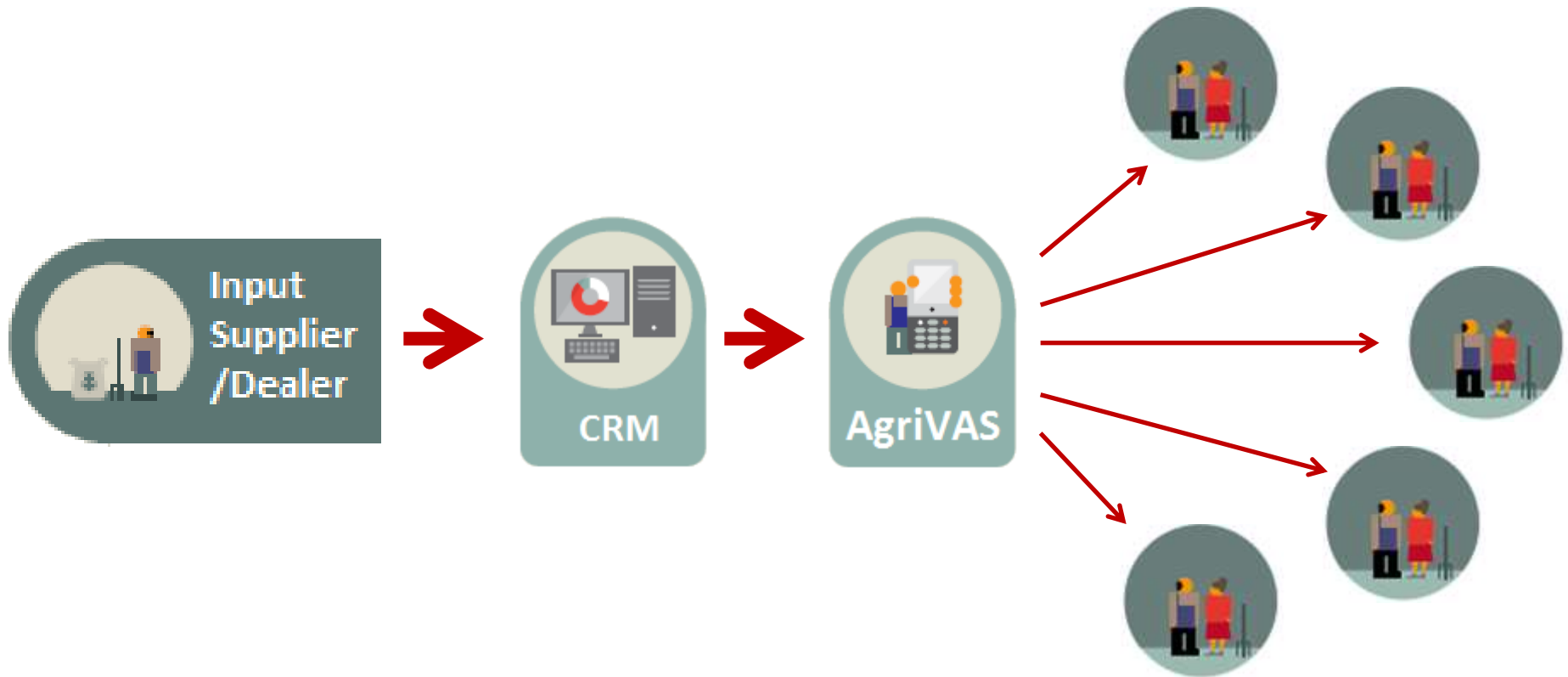
Insurance of farm inputs against drought and excessive rains



Market Research & Intelligence



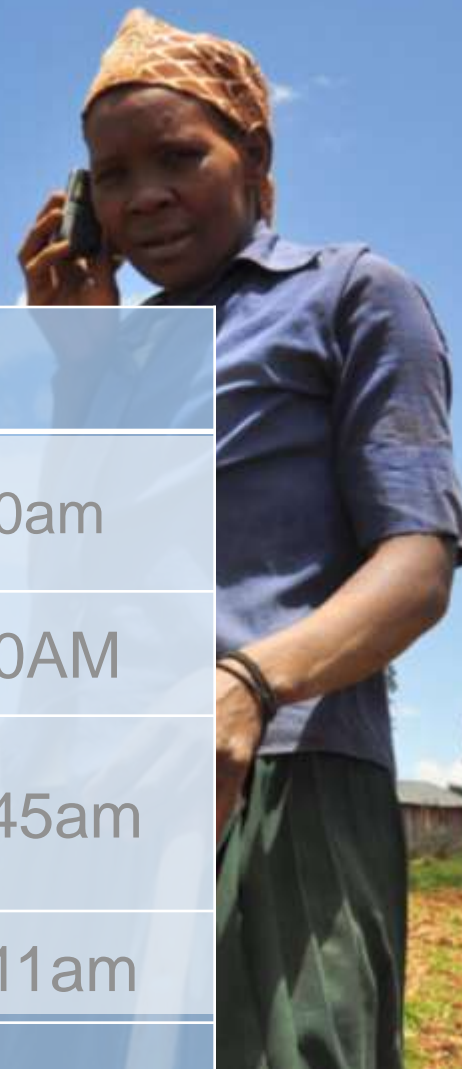
Targeted Mobile Marketing



Agenda

	Who	Timing
1. Intros	Judy, All	930am – 950am
2. mFarmer Overview	Amol	950AM – 10AM
3. Learning from GSMA's mAgri Team	Amol	10am – 1045am
Break		1045am – 11am
4. Beyond Mobile: ICT and AG	Judy	11am – 1140am
5. Discussion: Opportunities and Challenges in Ethiopia	All	1140am to Noon

Agenda



	Who	Timing
1. Intros	Judy, All	930am – 950am
2. mFarmer Overview	Amol	950AM – 10AM
3. Learning from GSMA's mAgri Team	Amol	10am – 1045am
Break		1045am – 11am
4. Beyond Mobile: ICT and AG	Judy	11am – 1140am
5. Discussion: Opportunities and Challenges in Ethiopia	All	1140am to Noon

4. Beyond Mobile: ICT and AG

Actually – *Beyond Mobile* and *Beyond Extension*....

Bag of ICT Tools:

Mobile (of course): voice, text, more

Low cost video

Compelling Radio – with feedback loop

Apps with GPS down to farmer's plot

A growing choice of affordable devices



Why Use ICT to Boost AG Success?

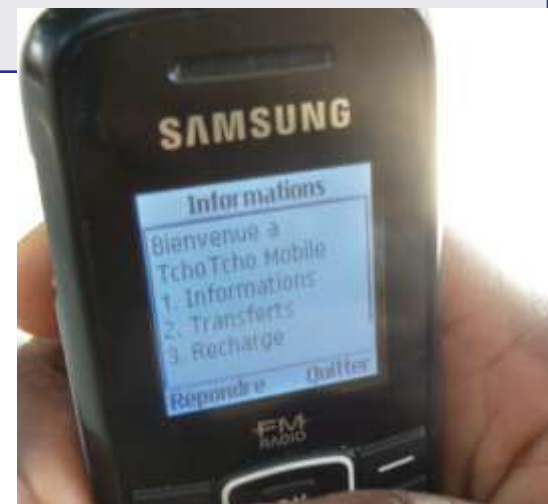
Increasing Productivity: Mobile and beyond...

Why?	ICT Application
Teach more farmers good farming practices to boost productivity (complementing proven methods – face-to-face, posters, demo plots)	Low-cost videos in local languages shared by many
Increase actual <i>use of</i> good farming practices to boost productivity – reinforce messages learned by other means <i>Improving precision of cropping practices</i>	SMS messages: reminders, alerts Compelling radio programs – with “Voice of the Farmer” via cell phones, more “Farmbook” type applications down to farmers’ plot
Help convince farmers to change practices	Low-cost video (well produced) Compelling radio (above)

Why Use ICT to Boost AG Success?

Improving Access/Savvy Work with Markets, Finance

Why?	ICT Application
Increase saving, get funds faster from relatives when needed, reduce borrowing, path to other financial products	Mobile Money
Increase bargaining power, prices paid to farmers (and farm associations/unions)	Market Price Info Systems (MIS)
Teach more farmers and cooperatives better management, marketing, pricing skills	Low-cost videos in local languages shared by many



Why Use ICT to Boost AG Success?

Improving Access/Savvy Work with Markets, Finance

Most USAID AG projects are already using some ICT.

(but few are sustainable, scalable)

Most not “packaged” as cool case studies.

Jury still out on most.

Danger of development “legends,” awardees.

Large buyers using, paying for ICT tools.

A few examples....



Digital Green (digitalgreen.org)



Where: India (and Ethiopia!)

How it works: NGO helps farmers produce videos showing improved practices. Feedback loop via IVR (phone).

Who Pays: Donors + farmer association subscriptions farmer orgs. Not sustainable based on subscription fees alone.

Scale: so far 600 villages with 42,000 farmers

Impact: 10x more cost effective than traditional approaches and adoption of better practices increased 7 fold. Larger scale control trial now under way.

Uses low end video equipment well, involving farmers.

Builds in feedback loop from farmers.

Assumes on-going subsidies available from gov't, others.

Exploring expansion to SSA

Radio – A few Examples

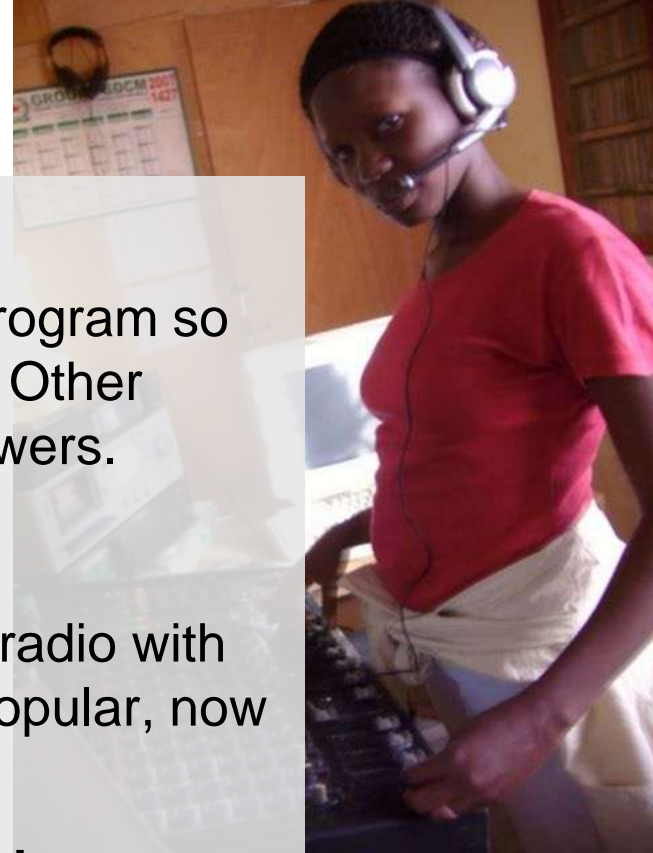
Where: India

How it work(ed): Adding IVR to popular radio program so farmers can post questions, get expert answers. Other farmers can hear their peers' questions and answers.

Where: Kenya

How it Works: Mali Shambani: weekly call-in radio with farmer “characters” to appeal to audience. So popular, now has private sponsor.

Other innovations: www.farmradio.org ...and more



***Feedback Loop from Farmer – SMS or Voice
Engage farmers – individually or in groups
Add drama – make compelling!***

36

Reuters Market Lite: Market Prices (and More)

Where: India (with exploration in sub-Saharan Africa)

How it works: Market prices, weather, tips on farming via SMS personalized by crop, region, language. 300 content specialists with info on 250 crop types.

Who Pays: Farmers subscribe. Not yet breaking even.

Scale: over 200,000 farmers subscribe in 15,000 villages in 12 states.

Impact: 1 study found benefits; second study now underway (IFPRI and Oxford) with control group.



Several types of information combined

No donor funding

Farmers pay

Dunavant Cotton: Financial and Supply Chain

Where: Zambia

Problem: Side selling; no visibility of best producers

How it works: Agents pay farmers on the spot. Best producers tracked, rewarded.

Who Pays: Large buyer (Dunavant)

Scale: 110,000 small farmers

Impact: Small farmers paid faster; rewarded for quality.



USAID PROFIT Project was the catalyst

Private company sees clear gains

Small farmers win too

Started to solve side selling, but led to other gains

What Works

How can we scale this to 1 million farmers?

How can we make sure this service continues beyond our project?

What is most valuable part of the service?

Who will pay?

What Doesn't

We have an ICT budget component – how do we spend it?

We don't have any project funds for ICT.

What is the “need”?

Let's do a “pilot” to get going fast!

What Works

How can we aggregate demand to reduce telecom costs?

Is this the best use of our funds to get impact?

How will know if this project has the impact we expect?

What Doesn't

We can afford to put in a VSAT for telecom access.

What a great “success story”!

We won an ICT4D award!

Where to Get Help

FACET: KM and short term TA for
ICT and AG (for USAID projects)
(*google FACET USAID*)

E-Agriculture: www.e-agriculture.org

World Bank: *Source Book*
<http://www.ictinagriculture.org/ictinag/>

mFarmer Market Entry Toolkit:
<http://www.gsma.com/documents/agricultural-value-added-services-agri-vas-market-entry-toolkit/19441/>



5. Discussion, Opportunities and Challenges in Ethiopia

jpayne@usaid.gov

Judy jpayne@usaid.gov

Amol ajadhav@gsm.org

www.usaid.gov

www.gsma.com/mfarmer

